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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,332	04/29/2004	YUI-SHIN FRAN	12889-US-PA	3331
31561	7590	03/13/2006	EXAMINER	
JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE 7 FLOOR-1, NO. 100 ROOSEVELT ROAD, SECTION 2 TAIPEI, 100 TAIWAN			HINES, ANNE M	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/709,332

Applicant(s)

FRAN ET AL.

Examiner

Anne M. Hines

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-12, 14-22 and 24-26 is/are rejected.
- 7) ☒ Claim(s) 9, 13 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The amendment filed on December 27, 2005, has been entered and acknowledged by the Examiner.

Claims 1-26 are pending in the instant application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5-8, 10, 15, 19-22, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nanto et al. (US 6,297,590) (of record).

Regarding claim 1, Nanto teaches a discharge plasma display panel comprising a cavity (Fig. 13, 30), having a light exit plane (Fig. 13, L); a discharge space, corresponding to the cavity (Fig. 13, 30; Column 6, line 34); a plurality of electrodes, disposed inside the cavity or outside the cavity (Fig. 13, X and Y; Column 1, line 44); a fluorescence layer, disposed on an inner wall of the cavity (Fig. 13, 24; Column 13, line 22); and a first light control layer, disposed overlapping portions of the fluorescence layer (Fig. 13, 28; Column 13, lines 28-29) corresponding to the light exit plane. In a plasma display panel a discharge gas is inherently present in the discharge cavity (Fig. 13, 30) in order for the device to operate. Nanto fails to teach wherein the intensity of

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light exiting from the first control layer is substantially the same as that of light exiting from other portions of the fluorescence layer not overlapped by the first control layer. However, one of ordinary skill in the art would reasonably contemplate that the three control layers (red, green, and blue) of Nanto (Fig. 13, 28; Fig. 1B) will, for a full color display (Column 6, lines 25-29), have the intensity of light exiting from the three control layers (red, green, blue) substantially the same as each of the others for a given pixel in order for that pixel to display white light. Therefore, it would be obvious to one of ordinary skill in the art for the full-color display of Nanto to have the light emitted from the first control layer (e.g. the red portion of layer 28) be the same intensity as the light emitted from other portions of the fluorescence not overlapped by the first control layer (e.g. the blue and green portions of 28) in order to display white light.

Regarding claim 15, Nanto teaches a discharge plasma display panel, comprising: a cavity (Fig. 13, 30), having a light exit plane and a bottom surface (Fig. 13), wherein the light exit plane is opposite to the bottom surface (Fig. 13, L); a discharge space, corresponding to the cavity (Fig. 13, 30; Column 6, line 34); a plurality of electrodes, disposed overlapping portions of the fluorescence layer (Fig. 13, 28; Column 13, lines 28-29) corresponding to the light exit plane. In a plasma display panel a discharge gas is inherently present in the discharge cavity (Fig. 13, 30) in order for the device to operate. Nanto fails to teach wherein the intensity of light exiting from the first control layer is substantially the same as that of light exiting from other portions of the fluorescence layer not overlapped by the first control layer. However, one of ordinary skill in the art would reasonably contemplate that the three control layers (red, green,

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and blue) of Nanto (Fig. 13, 28; Fig. 1B) will, for a full color display (Column 6, lines 25-29), have the intensity of light exiting from the three control layers (red, green, blue) substantially the same as each of the others for a given pixel in order for that pixel to display white light. Therefore, it would be obvious to one of ordinary skill in the art for the full-color display of Nanto to have the light emitted from the first control layer (e.g. the red portion of layer 28) be the same intensity as the light emitted from other portions of the fluorescence not overlapped by the first control layer (e.g. the blue and green portions of 28) in order to display white light.

Regarding claims 5 and 19, Nanto further discloses wherein each of the electrodes comprises a plurality of protrusions (Fig. 13, X and Y which protrude into dielectric 17).

Regarding claims 6 and 20, Nanto further discloses wherein the cavity is divided by the electrodes into at least one sub-cavity (Fig. 11, the sub-cavities corresponding to L1, L2, L3), and the sub-cavity is divided by the protrusions of the electrodes into a plurality of first light emitting areas (Fig. 11, e.g. portion between electrode protrusions 42 of electrodes X1 and Y1) and a plurality of second light emitting areas disposed between the first light emitting areas (Fig. 11, e.g. portions between electrode protrusions 42 and light shielding film 48).

Regarding claims 7, Nanto further discloses wherein the first light control layer (Fig. 13, 28; Fig. 1B, see red "R" pattern) is disposed over the fluorescence layer (Fig. 13, 24) corresponding to the first light emitting area (Fig. 13, L).

Regarding claims 8, Nanto further discloses wherein a material of the first light control layer comprises a fluorescence material (Fig. 13, 28; Column 13, lines 28-29).

Regarding claims 10, Nanto further discloses wherein the first light control layer (Fig. 13, 28) comprises a single patterned film or multi-layer stacked patterned film layer (Fig. 11, where the phosphor patterns for "R", "B", "G" are shown).

Regarding claim 11, Nanto further discloses a second light control layer (Fig. 13, 28; Fig. 1B, see blue "B" or green "G" pattern), disposed over the fluorescence layer corresponding to the second light emitting area (Fig. 13, 28 & L).

Regarding claim 12, Nanto further discloses wherein a material of the second light control layer comprises a fluorescence material (Fig. 13, 28; Column 13, lines 28-29).

Regarding claim 14, Nanto further discloses wherein the second light control layer comprises a single patterned film layer (Fig. 13, 28; Fig. 1B, see blue "B" or green "G" pattern).

Regarding claims 21, Nanto further discloses wherein the first light control layer (Fig. 13, 28) is disposed over the fluorescence layer (Fig. 13, 24) corresponding to the second light emitting area (Fig. 13, L).

Regarding claims 22, Nanto further discloses wherein a material of the first light control layer comprises a fluorescence material (Fig. 13, 28; Column 13, lines 28-29).

Regarding claims 24, Nanto further discloses wherein the light control layer (Fig. 13, 28) comprises a single patterned film or multi-layer stacked patterned film layer (Fig. 11, where the phosphor patterns for "R", "B", "G" are shown).

Regarding claim 25, Nanto teaches a cavity (Fig. 13, 30), having a first substrate (Fig. 13, 21; Column 13, line 22), a second substrate disposed over the first substrate (Fig. 13, 11; Column 13, line 16), a light exit plane (Fig. 13, L) and a bottom surface (see bottom of 21), wherein the light exit plane is opposite to the bottom surface; a plurality of electrodes, disposed inside the cavity, comprising a plurality of protrusions (Fig. 13, X and Y; Column 1, line 44), wherein the electrodes divide the cavity into at least one sub-cavity, and sub-cavity is divided by the protrusions of the electrodes into a plurality of first light emitting areas (Fig. 11, e.g. portion between electrode protrusions 42 of electrodes X1 and Y1) and a plurality of second light emitting areas disposed between the first light emitting areas (Fig. 11, e.g. portions between electrode protrusions 42 and light shielding film 48); a fluorescence layer, disposed on an inner wall of the cavity (Fig. 13, 24; Column 13, line 22); and a light control layer, disposed over the fluorescence layer on the first substrate, positioned corresponding to the plurality of first light emitting areas (Fig. 13, 28; Column 13, lines 28-29). In a plasma display panel a discharge gas is inherently present in the discharge cavity (Fig. 13, 30) in order for the device to operate. Nanto fails to teach wherein the intensity of light exiting from the first control layer is substantially the same as that of light exiting from other portions of the fluorescence layer not overlapped by the first control layer. However, one of ordinary skill in the art would reasonably contemplate that the three control layers (red, green, and blue) of Nanto (Fig. 13, 28; Fig. 1B) will, for a full color display (Column 6, lines 25-29), have the intensity of light exiting from the three control layers (red, green, blue) substantially the same as each of the others for a given pixel in

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order for that pixel to display white light. Therefore, it would be obvious to one of ordinary skill in the art for the full-color display of Nanto to have the light emitted from the first control layer (e.g. the red portion of layer 28) be the same intensity as the light emitted from other portions of the fluorescence not overlapped by the first control layer (e.g. the blue and green portions of 28) in order to display white light.

Regarding claim 26, Nanto teaches a cavity (Fig. 13, 30), having a first substrate (Fig. 13, 11; Column 13, line 16), a second substrate disposed over the first substrate (Fig. 13, 21; Column 13, line 22), a light exit plane (Fig. 13, L) and a bottom surface (see bottom of 21), wherein the light exit plane is opposite to the bottom surface; a plurality of electrodes, disposed inside the cavity, comprising a plurality of protrusions (Fig. 13, X and Y; Column 1, line 44), wherein the electrodes divide the cavity into at least one sub-cavity, and sub-cavity is divided by the protrusions of the electrodes into a plurality of first light emitting areas (Fig. 11, e.g. portion between electrode protrusions 42 of electrodes X1 and Y1) and a plurality of second light emitting areas disposed between the first light emitting areas (Fig. 11, e.g. portions between electrode protrusions 42 and light shielding film 48); a fluorescence layer, disposed on an inner wall of the cavity (Fig. 13, 24; Column 13, line 22); and a light control layer, disposed over the fluorescence layer on the second substrate, positioned corresponding to the plurality of first light emitting areas (Fig. 13, 28; Column 13, lines 28-29). In a plasma display panel a discharge gas is inherently present in the discharge cavity (Fig. 13, 30) in order for the device to operate. Nanto fails to teach wherein the intensity of light exiting from the first control layer is substantially the same as that of light exiting from

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other portions of the fluorescence layer not overlapped by the first control layer.

However, one of ordinary skill in the art would reasonably contemplate that the three control layers (red, green, and blue) of Nanto (Fig. 13, 28; Fig. 1B) will, for a full color display (Column 6, lines 25-29), have the intensity of light exiting from the three control layers (red, green, blue) substantially the same as each of the others for a given pixel in order for that pixel to display white light. Therefore, it would be obvious to one of ordinary skill in the art for the full-color display of Nanto to have the light emitted from the first control layer (e.g. the red portion of layer 28) be the same intensity as the light emitted from other portions of the fluorescence not overlapped by the first control layer (e.g. the blue and green portions of 28) in order to display white light.

Claims 2 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nanto et al. (US Pat. No. 6,297,590) (of record) and further in view of Park et al. (US Pat. No. 6,858,979) (of record).

Regarding claims 2 and 16, Nanto teaches the inventions of claims 1 and 15 and further teaches a first substrate (Fig. 13, 21), and a second substrate disposed over the first substrate (Fig. 13, 11). Nanto fails to teach wherein a sidebar disposed between the first and second substrates is connected to an edge of the first substrate and an edge of the second substrate. Park teaches wherein a sidebar (Fig. 5, 70; Column 4, lines 25-28) disposed between the first and second substrates is connected to an edge of the first substrate (Fig. 5, 20; Column 4, lines 25-28) and an edge of the second substrate

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(Fig. 5, 10; Column 4, lines 25-28) in order to separate the first and second substrates from each other by a predetermined distance (Column 4, lines 25-28).

Claims 3-4 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nanto et al. (US Pat. No. 6,297,590) (of record) and further in view of Park (US Pat. No. 6,744,195) (of record).

Regarding claims 3, 4, 17, and 18, Nanto teaches a discharge gas but fails to teach wherein the discharge gas is inert. Nanto also fails to teach wherein the discharge gas is Argon, Neon, or Xenon. Park teaches wherein the discharge gas is Xenon (Column 2, lines 44-50) in order for plasma to be formed when a voltage is applied to the electrodes (Column 2, lines 44-50). Xenon is an inert gas.

Allowable Subject Matter

Claims 9, 13, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed December 27, 2005 have been fully considered but they are not persuasive.

Applicant argues that the Nanto reference fails to teach or disclose a cold cathode fluorescent lamp suitable for use as a backlight source of a liquid crystal panel.

The Examiner respectfully disagrees.

In response to applicant's arguments, the recitation of a cold cathode fluorescent lamp suitable for use as a backlight source of a liquid crystal panel has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Additionally, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Applicant argues that the light shielding film (45) of Nanto was interpreted by the Examiner as equivalent of the first light control layer of the claimed invention. Applicant further argues that layer 45 of Nanto is a light-blocking layer and not a light control layer.

The Examiner respectfully disagrees.

In the rejection of the claims in the office action mailed on September 27, 2005 the Examiner did not interpret the light shielding film (45) of Nanto as the first light control layer, but rather interpreted the phosphor layer (28) in Figure 13 as the light control layer. See the rejection of independent claims 1, 15, 25, and 26 above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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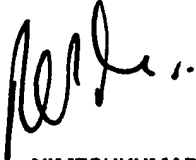
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne M. Hines whose telephone number is (571) 272-2285. The examiner can normally be reached on Monday through Friday from 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anne M Hines
Patent Examiner
Art Unit 2879

Amt
2/27/06


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